

Supporting Information

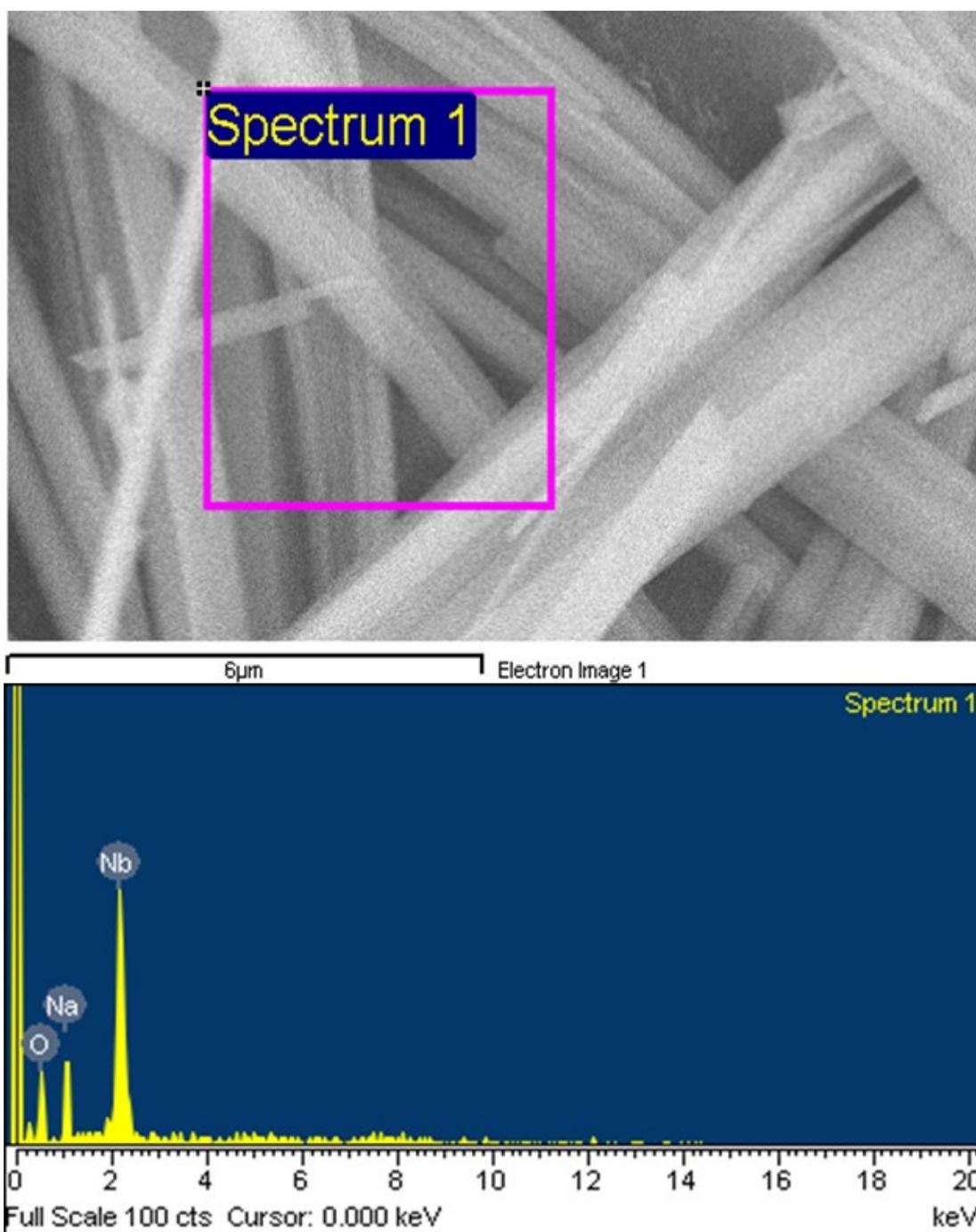


Figure S1. SEM image of SOMS MWs and result of EDS (inset).

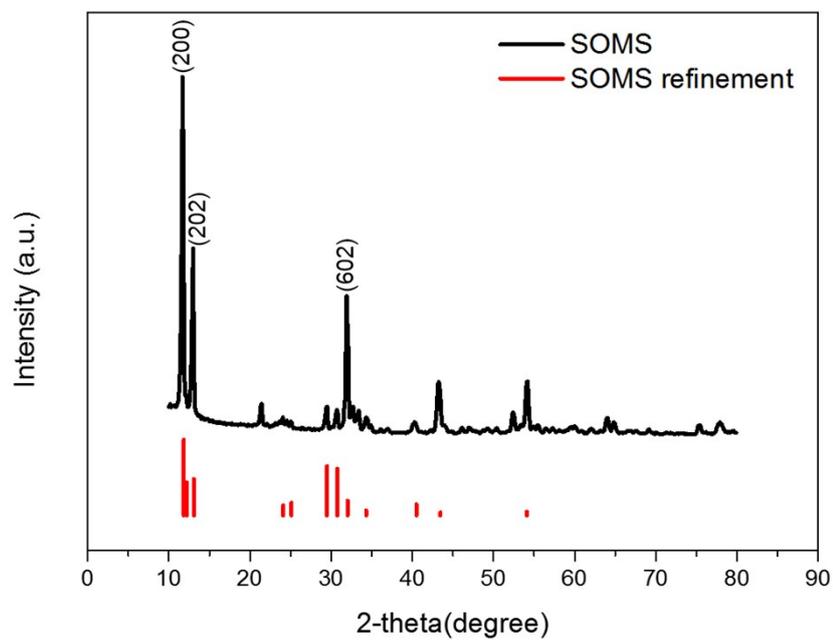


Figure S2. XRD pattern of powdered SOMS (black) and the result of SOMS refinement (red).

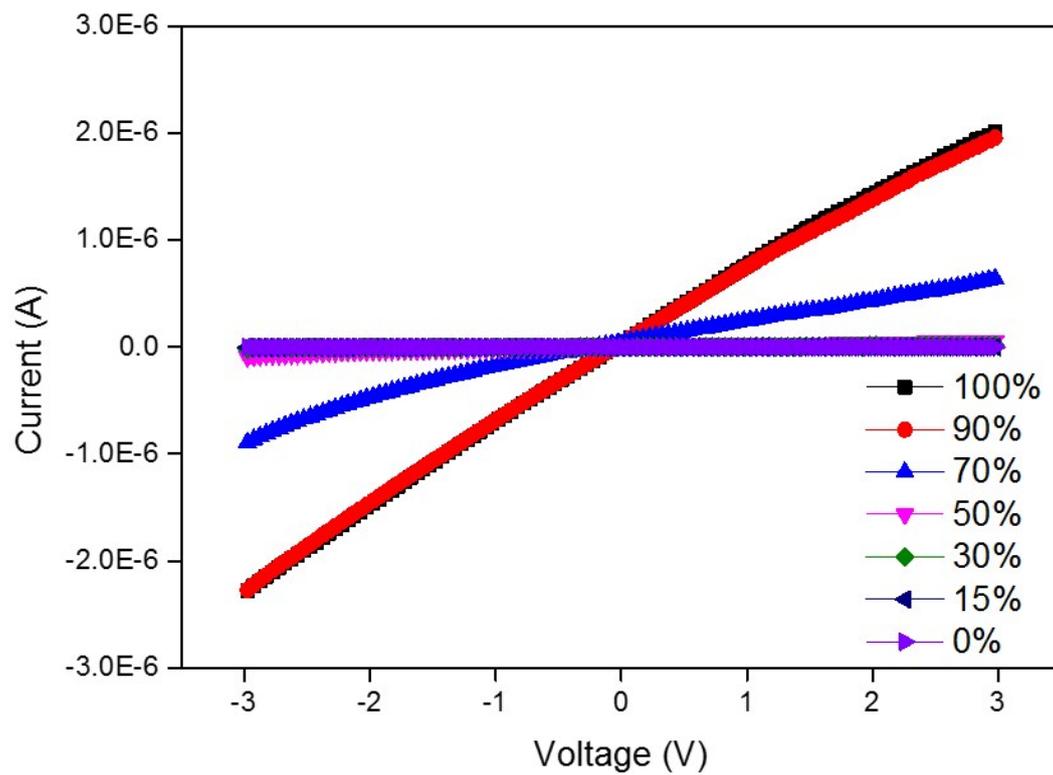


Figure S3. I-V curves of S-1.00 were measured statically under various RH atmosphere.

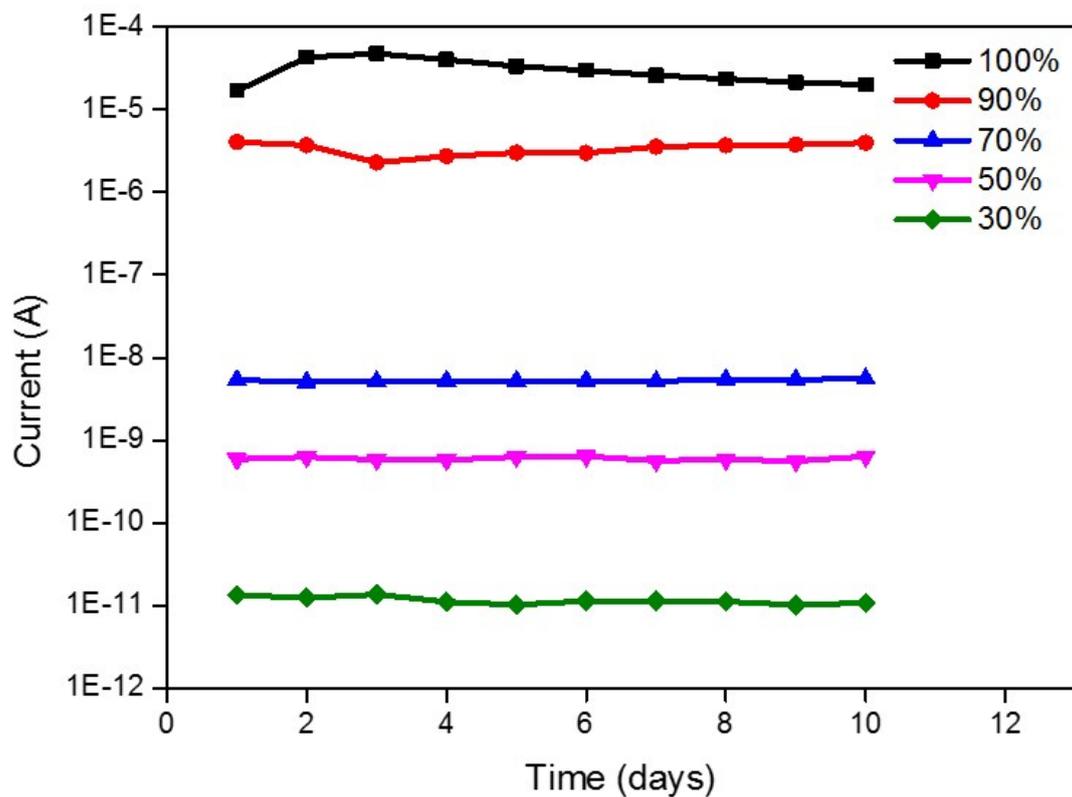


Figure S4. Durability of S-1.00 was tested repeatedly under different fixed-RH levels (RH 30, 50, 70, 90, 100%) during 10 days. All tests were run with bias voltage of 10 V and under the fixed temperature (25 °C).

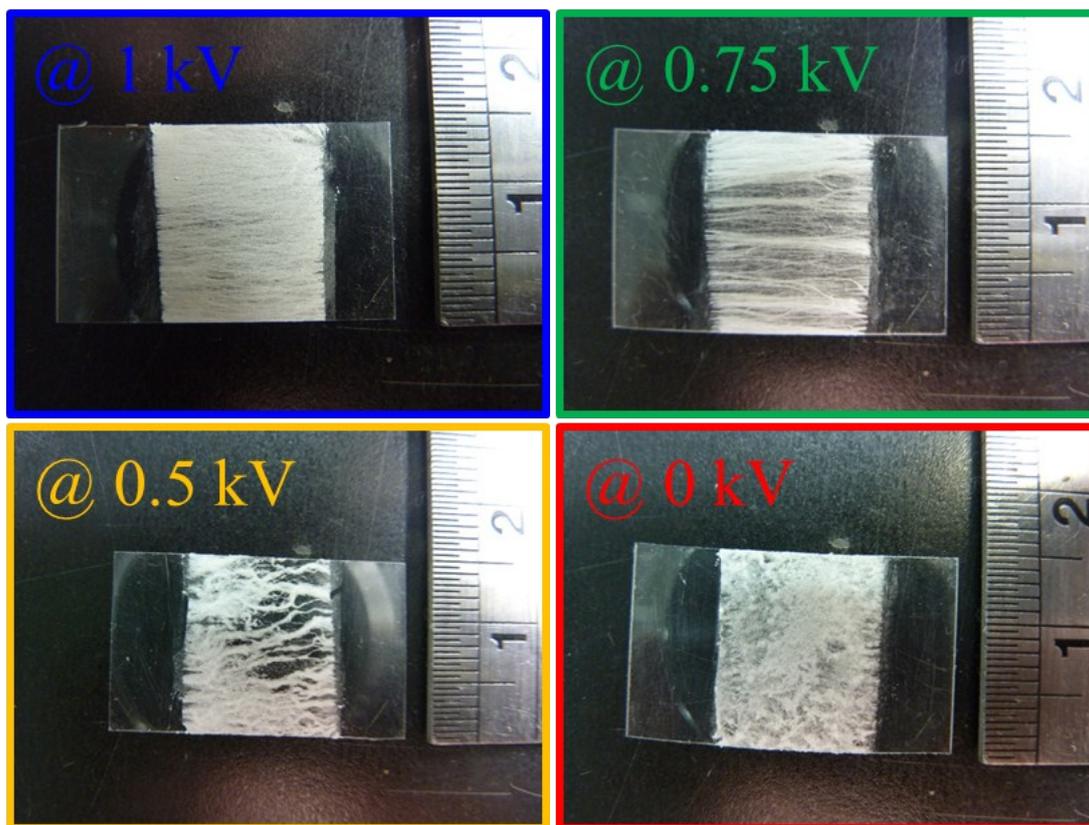


Figure S5. Digital image of as-fabricated humidity sensors through electrophoresis method with 0 (S-0.00), 0.5 (S-0.50), 0.75 (S-0.75) and 1 kV (S-1.00) applied.

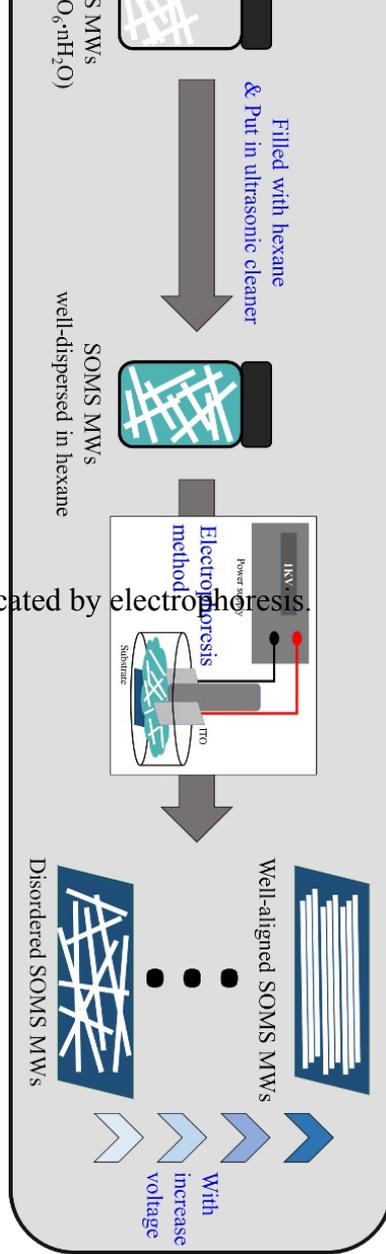


Fig S6. Schematic of humidity-sensing devices fabricated by electrophoresis.